- An integrated paper of claim 1 wherein said fibrillated fibers comprise Lyocell.
- An integrated paper of claim 2 wherein the Iyocell has an average fiber diameter of less than about 400 nm.
- 4. An integrated paper of claim 1 wherein said active agents have an average particle size of less than or equal to about 1  $\mu$  to about 5000  $\mu$ .
- 5. An integrated paper of claim 1 wherein the average diameter of said fibrillated fibers is less than an average particle size of said active agents.
- 6. An integrated paper of claim 1 futher including binder fibers or particles.
- 7. An integrated paper of claim 1 wherein said fibrillated fibers and said active agents have different settling velocities such that said integrated paper has an asymmetric structure when formed by wet-laid processes.
- 8. (Amended) An integrated paper of claim I further including a microbiological intercept ion enhancing agent comprising a cationic material having a counter ion associated therewith when exposed to an aqueous biologically active metal salt solution forms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at least some of the nanofibers and/or active agent.
- 9. An integrated paper er comprising of:
  a plurality of fibers fibrillated at a temperature greater than about 30°C, wherein said
  fibrillated fibers have an average fiber diameter of less than about 400 nm; and silver oxide
  particles admixed with said fibrillated fibers.
- 10. An integrated paper of claim 9 wherein the fibrillated fibers comprise a liquid crystal polymer.
- 11. (Amended) An integrated paper comprising of:

  a plurality of fibers fibrillated at a temperature greater than about

  30°C, wherein said fibers have an average fiber diameter of less than
  about 400 nm; and

one or more acid neutralizing agents admixed with said fibrillated fibers;

wherein said integrated paper can withstand a hot and corrosive environment of a lube oil filter and wherein said one or more acid neutralizing agents comprises magnesium oxide, magnesium hydroxide, calcium sulfonate, magnesium sulfonate, calcium phenate, or combinations thereof.

- An integrated paper of claim 11 further including binder fibers or particles.
- (Cancelled) An integrated paper of claim 11 wherein said one or more acid
  neutralizing agents comprises magnesium oxide, magnesium hydroxide,
  calcium sulfonate, magnesium sulfonate, calcium phenate, magnesium

phenate, or combinations thereof comprising a cationic material having a counter ion
associated therewith when exposed to an aqueous biologically active metal salt solution for
ms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at
least some of the nanofibers and/or active agents.

- 14. An integrated paper comprising of:
  - a plurality of lyocell fibers fibrillated at a temperature greater than about 30%, wherein said fibrillated lyocell fibers have an average fiber diameter of less than or equal to about 400 nm; and activated carbon particles admixed with said fibrillated lyocell fibers, wherein said integrated paper has a mean flow path of less than about 2  $\mu$ .
- 15. (Currently amneded) An integrated paper of claim 14 further including a microbiological interception enhancing agent comprising a cationic material having a counter ion associated therewith when exposed to an aqueous biologically active metal salt solution forms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at least some of the nanofibers and/or active agents.
- An integrated paper of claim 14 further including a heavy metal reducing agent.

- 17. An integrated paper of claim 16 wherein the heavy metal reduction agent comprises particles of zeolite, silicate, or combinations thereof.
- An integrated paper of claim 14 further including an arsenic reducing agent.
- 19. An integrated paper of claim 18 wherein the arsenic reducing agent comprises particles of iron, oxides of manganese or iron, or combinations thereof.
- 20. An integrated paper comporising
- a plurality of fibers having an average fiber diameter of less than about 1000 nm; and a lead reducing agent admixed with said plurality of fibers, wherein said integrated paper has a mean flow path of less than about 2  $\mu$ .
- 21. (Currently amended) An integrated paper of claim 20 further including a microbiological interception enhancing agent comprising a cationic material having a counter ion associated therewith when exposed to an aqueous biologically active metal sall solution forms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at least some of the nanofibers and/or active agents..
- An integrated paper of claim 20 further including binder fibers or particles.
- 23.

(Currently amended) An integrated paper of claim 22 further including a microbiological interception enhancing agent comprising a cationic material having a counter ion associated therewith when exposed to an aqueous biologically active metal salt solution forms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at least so me of the nanofibers and/or active agents.

24. (Amended) An integrated paper of claim 20 further including a carbon block, wherein said integrated paper is wrapped around the carbon block including a microbiological interception enhancing agent associated with said paper and/or said block comprising a cationic material having a counter ion associate therewith when exposed to an aqueous biologically active metal salt solution forms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at least some of the carbon block, nanofibers and/or active agents.

25. (Currently Amended) An integrated paper of claim 24 further including a microbiological interception enhancing agent comprising a cationic material having a counter ion associated therewith when exposed to an aqueous biologically active metal salt solution forms the colloidal metal precipitate that precipitates onto at least a portion of the surface of at least some of the nanofibers and/or active agents.

